PROPOSED REVISION TO THE WISCONSIN STATE IMPLEMENTATION PLAN (SIP) FOR THE VEHICLE INSPECTION AND MAINTAINCE (I/M) PROGRAM

FOR THE

MILWAUKEE-RACINE 6-COUNTY
SUBPART-2 MODERATE NONATTAINMENT AREA

SHEBOYGAN COUNTY
SUBPART-2 MODERATE NONATTAINMENT AREA

WISCONSIN

Developed By:
The Wisconsin Department of Natural Resources

April 2012

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INTRODUCTION

The Wisconsin Department of Natural Resources (WDNR) hereby submits a supplement to its November 15, 1992, State Implementation Plan (SIP) revision relating to various enhancements to the state's vehicle inspection and maintenance (I/M) program in the southeastern Wisconsin counties subject to the I/M requirements under Title 1 of the Clean Air Act (CAA), as amended in 1990. The following seven counties are currently subject to the vehicle I/M requirements: Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington and Waukesha. Previous supplements to the initial November 15, 1992, submittal were transmitted on January 15, 1993, July 28, 1994, February 13, 1996, July 3, 1997, August 6, 1998, December 30, 1998 and July 27, 2001.

BACKGROUND AND HISTORY OF THE WISCONSIN VEHICLE I/M PROGRAM

The WDNR and the Wisconsin Department of Transportation (WisDOT) have jointly administered the Wisconsin Vehicle Inspection Program (WVIP), also known as the Wisconsin I/M Program, since 1984. It began operating as a basic program in the Milwaukee-Racine Nonattainment Area. The program expanded to Sheboygan County in July 1993. In December 1995, the program transitioned to the enhanced classification. The major enhancement involved new test procedures which more effectively identify high-emitting vehicles. Improving repairs and public convenience were also major focuses of the enhancement effort. The WDNR establishes the emission limitations and WisDOT administers the program. Sound interagency planning and coordination have made the Wisconsin I/M Program one of the country's most successful and effective emissions testing programs.

In March 2006, Wisconsin convened an interagency workgroup to examine the future of Wisconsin's I/M Program. The workgroup assessed possible program design options on the basis of emission benefits and cost effectiveness. One of their key conclusions was that by the year 2012, tailpipe testing would provide little additional emission reduction benefit. It was projected that the vast majority of the vehicle fleet would be on-board diagnostic (OBDII) equipped by this time. This conclusion was based on the results of the U.S. Environmental Protection Agency's (EPA's) approved mobile emissions model at the time, MOBILE6.2, and was relied on to support state law changes affecting the Wisconsin I/M Program.

Wisconsin enacted the workgroup's recommendations as 2007 Wis. Act 20. That act amended section 285.30, Wis. Stats., to make the following primary changes to the I/M Program beginning in July, 2008:

- Elimination of I/M program testing for non-OBDII-equipped vehicles. This change impacted vehicles having Model Year (MY) 1968 through 1995. These vehicles were previously subject to tailpipe testing.

- Elimination of I/M program testing for gasoline vehicles with a gross vehicle weight rating (GVWR) between 8,500 – 10,000 pounds (lbs). This change impacted vehicles having MY 1996 through 2006.

- Addition of I/M program testing for gasoline vehicles with a GVWR of 10,000 to 14,000 pounds. This change impacted vehicles having MY 2007 or newer.

- Addition of I/M program testing for diesel vehicles with a GVWR up to 14,000 lbs. This change impacted MY 2007 and newer.

The purpose of adding an I/M testing requirement for heavier gasoline and diesel vehicles was to offset any lost emission reductions from the elimination of tailpipe testing. The I/M program changes reduced the cost of the Wisconsin I/M Program by $9.8 million from $13.27 million to $3.47 million annually.

SUMMARY OF WISCONSIN LAW CHANGES

A copy of the updated state statutes and administrative code sections are located in Appendix A.

STATE STATUTE CHANGES

Since the last supplemental SIP submission to the U.S. EPA transmitted on July 27, 2001, the revisions to **Section 100.20, Wis. Stats.**, include the following:

1. 2001 Wisconsin Act 16, published August 31, 2001 changed the time period of inspection required prior to renewal of registration.

2. 2003 Wisconsin Act 220, published April 22, 2003 added two years to the grace period for newer vehicles – i.e. vehicle now first inspected in the 4th year after the model year (instead of the 2nd year).

3. 2005 Wisconsin Act 49, published October 27, 2005 deleted requirements that Wisconsin Department of Revenue audit records of the contractor annually and publish results of the audit.

4. 2007 Wisconsin Act 20, published October 26, 2007 allowed the WisDOT to establish other emission testing methods and that emission testing may be performed by other authorized persons in addition to contractors.

5. 2009 Wisconsin Act 228, published May 19, 2010 allowed WisDOT to contract for emission testing with persons engaged in the business of selling, maintaining or repairing motor vehicles or of selling motor vehicle replacement or repair parts. In addition, WisDOT with concurrence of WDNR, may grant a temporary exemption of the I/M contract.

Since the last supplemental SIP submission to the U.S. EPA transmitted on July 27, 2001, the revisions to **Section 285.30, Wis. Stats.**, include the following:

1. 2003 Wisconsin Act 192, published April 21, 2004 exempts off-road utility vehicles from emission testing.

2. 2007 Wisconsin Act 20, published October 26, 2007 changes:

    a. Oldest model year tested from 1968 to 1996.

    b. Maximum weight tested from 10,000 lbs. to 8,500 lbs. for MY 2006 and earlier and from 10,000 lbs. to 14,000 lbs. for MY 2007 and newer.

    c. Diesel vehicles of MY 2007 and newer no longer exempt.

3. 2007 Wisconsin Act 33, published December 3, 2007 exempts neighborhood electric vehicles from emissions testing.

4. 2009 Wisconsin Act 157, published March 24, 2010 exempts lightweight utility vehicles from emission testing.

5. 2009 Wisconsin Act 311, published May 26, 2010 modifies the definition of neighborhood electric vehicle to low-speed vehicle and exempts low-speed vehicles from emission testing.

STATE ADMINISTRATIVE CODE CHANGES

Since the last ozone SIP, the "Wisconsin Phase 3 Ozone Attainment SIP", was developed and submitted to the U.S. EPA Region V on December 22, 2000, the revisions to **Chapter NR 485, Wis. Adm. Code**, include the following:

1) Clearinghouse Rule CR 05-072 effective April 1, 2006 changes:

    a) NR 485.04 Motor vehicle emission limitations; exemptions – relax oxides of nitrogen (NO_x) emission limitations for some groups of trucks and older cars; establish new emission limitations for MY 2005 and newer heavy-duty vehicles; and simplify the emission limitations for some categories of MY 1994-1996 vehicles.

    b) NR 485.06 Tampering with air pollution-control equipment – revise the catalytic converter replacement provisions to make them consistent with the current federal emission warranty provisions in 40 CFR part 85.

2) Clearinghouse Rule CR 10-049 effective December 1, 2010 changes:

    a) NR 485.02 Definitions – repeal the definitions for the Evaporative system integrity (pressure) test; Evaporative system purge test; and Steady-state tests.

    b) NR 485.04 Motor vehicle emission limitations; exemptions – repeal the emission limitations for the repealed tests under s. NR 485.02.

    c) NR 485.045 Repair cost limit for vehicle inspection program – inflation-adjusted repair cost waiver limit, currently at $800, expanded to all counties subject to the I/M program and vehicles with OBDII systems.

Since the last ozone SIP, the "Wisconsin Phase 3 Ozone Attainment SIP", was developed and submitted to the U.S. EPA Region V on December 22, 2000, the revisions to **Chapter Trans 131, Wis. Adm. Code**, include the following:

1) Clearinghouse Rule CR 01-121 effective April 1, 2002 changes:

    a) Trans 131.03, Trans 131.04, Trans 131.08 and Trans 131.10 – amended to change the period of time prior to registration renewal in which a vehicle may be tested to 180 days from 90 days. The other provisions were references to this change and correspond to the extended time period.

2) Clearinghouse Rule CR 07-114 effective July 1, 2008 changes:

    a) Trans 131.01, Trans 131.02, Trans 131.03, Trans 131.04, Trans 131.05, Trans 131.07, Trans 131.09, Trans 131.11, Trans 131.12, Trans 131.13, Trans 131.14 and Trans 131.16 – implemented 2007 Act 20 to establish the second-generation on-board diagnostic test (OBD II) as the only testing method and the I/M program changed: i) to eliminate emission inspection of vehicles MY 1995 and earlier, ii) add emission inspection of vehicles MY 2007 and later up to 14,000 lbs. gross vehicle weight rating (GVWR) while limiting vehicle MY 2006 and earlier to 8,500 lbs. GVWR, and iii) add emission inspection of vehicles MY 2007 and later that are powered by diesel fuel.

b) Establishes as the service delivery method a possibility of a contractor who performs the OBD II test at its own facilities, or by subcontracted testing at subcontractors' facilities, or at self-service facilities where a vehicle owner may test the vehicle; and transmission of the test results and repair information to the WisDOT electronically in a format specified by the WisDOT.

c) Clarifies that to obtain a waiver of compliance on the basis of statutory repair cost limit, the vehicle must pass a waiver emission equipment inspection.

d) Clarifies that the WisDOT may determine whether a vehicle domicile as stated is consistent with the vehicle owner or lessee address or other information to deter the avoidance of the emission test requirement.

3) Clearinghouse Rule CR 10-088 effective January 1, 2011 changes:

a) Trans 131.01, Trans 131.02, Trans 131.03, Trans 131.04, Trans 131.05, Trans 131.06, Trans 131.07, Trans 131.11, Trans 131.12, Trans 131.13, Trans 131.14 and Trans 131.15 – amended to allow a cost waiver even if a vehicle's Malfunction Indicator Light (MIL) is unable to be turned off.

b) Clarifies and changes the term emission "test" to emission "inspection" and reserves the term "test" to refer to the vehicle's internal computer check of diagnostic codes and in the reference to the "remote sensing test" method of assessing vehicle emissions.

c) Expands reference to the functions of the Technical Assistance Center to clarify that those functions may be performed by an inspector that the WisDOT designates who may issue waivers of compliance.

CLEAN AIR ACT CONSIDERATIONS

The WDNR is aware that any proposed SIP revision can not be approved by the U.S. EPA without appropriate consideration of CAA Section 110(l), which is as follows:

> "*Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter*."

This section of the CAA is often referred to as the "anti-backsliding provision." U.S. EPA Region V claims that the following criteria are used by the agency to demonstrate noninterference for the affected pollutant(s) with respect to attainment and maintenance based on draft CAA 110(l) guidance:

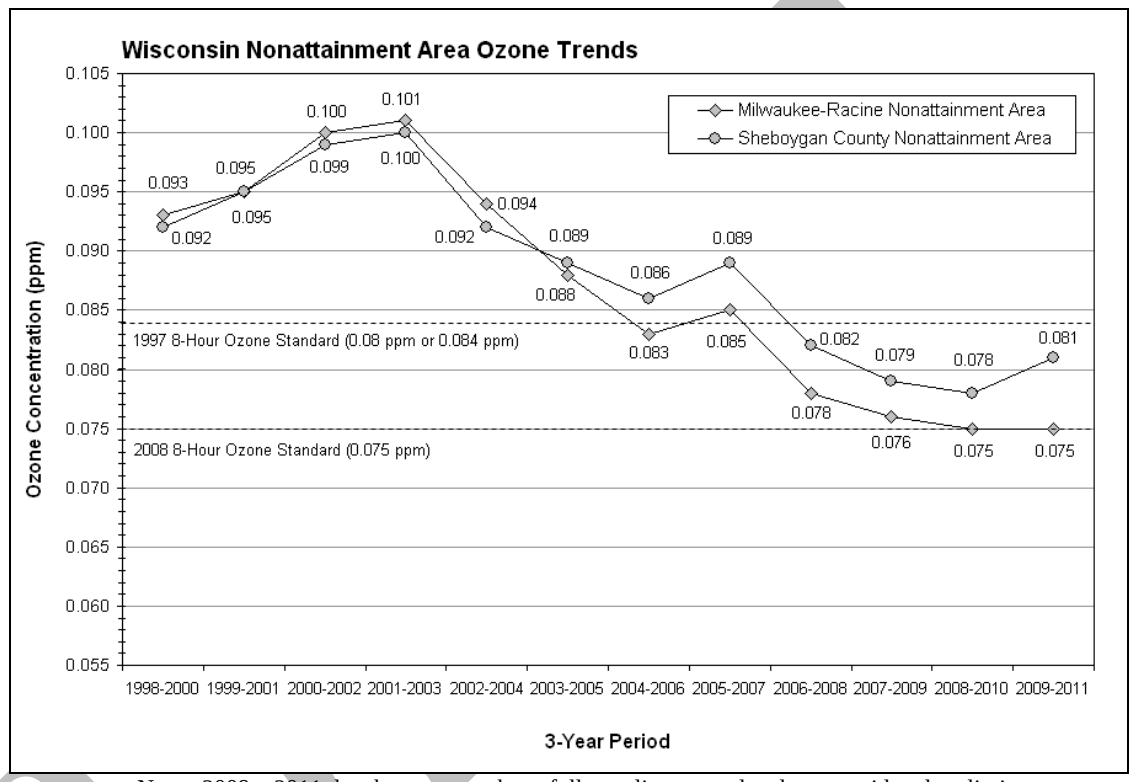
1. Substitution of one measure by another with equivalent or greater emissions reductions/air quality benefit; or

2. an air quality analysis showing that removing the measure will not interfere with other applicable requirements (i.e., without a substitute measure).

AIR QUALITY CONCENTRATIONS IN SOUTHEAST WISCONSIN

Section 182(b)(4) of the CAA requires moderate ozone nonattainment areas to have motor vehicle I/M programs as an emissions control strategy. Both the Milwaukee-Racine and Sheboygan County Nonattainment Areas are classified as moderate nonattainment areas for the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS). Both nonattainment areas have achieved the 1997 8-hour ozone NAAQS since the 2006 – 2008 time period and have continued to attain the standard. This is reflected in the following figure, which shows maximum design values for the two nonattainment areas in Wisconsin since 1998:

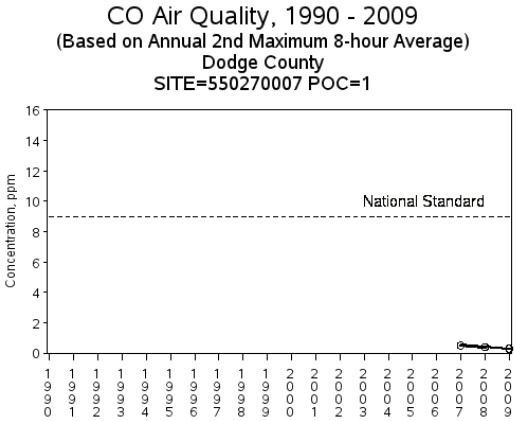
Figure 1

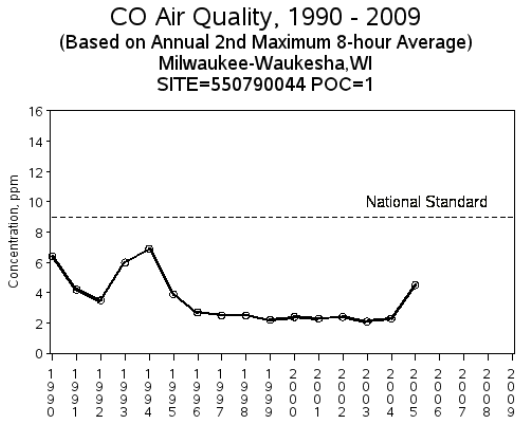


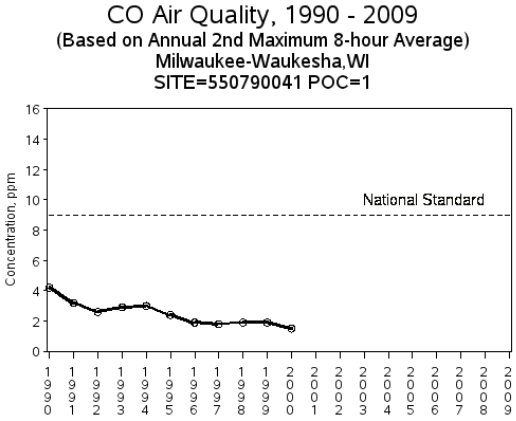
Note: 2009 – 2011 data have not yet been fully quality assured and are considered preliminary.

The Wisconsin I/M Program also provides carbon monoxide emission reductions, so it is important to consider available monitoring data and trends. The state operated an extensive carbon monoxide network in the past, but the WDNR has significantly scaled this network back as concentrations were well below the NAAQS. Currently, there is only one carbon monoxide monitor near the seven southeast Wisconsin I/M counties located in Dodge County, Wisconsin. The following twelve figures show trends in carbon monoxide concentrations, indicating that the state is far below the NAAQS. These figures have been taken from the U.S. EPA's air trends website (http://www.epa.gov/airtrends/carbon.html#coloc).

Figures 2 – 7


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Dodge County
SITE=550270007 POC=1
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
SITE=550790044 POC=1
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
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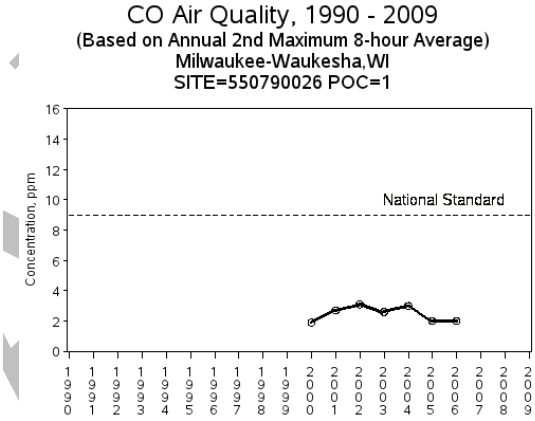
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
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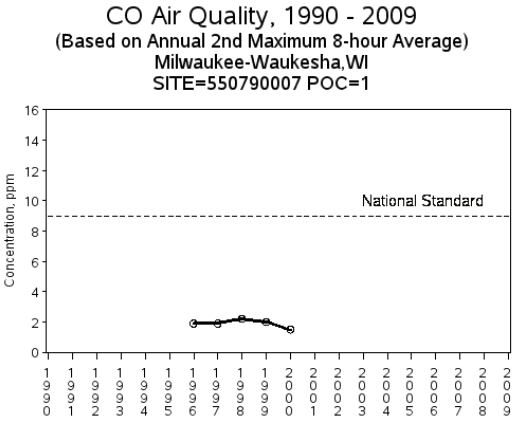
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
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Milwaukee-Waukesha,WI
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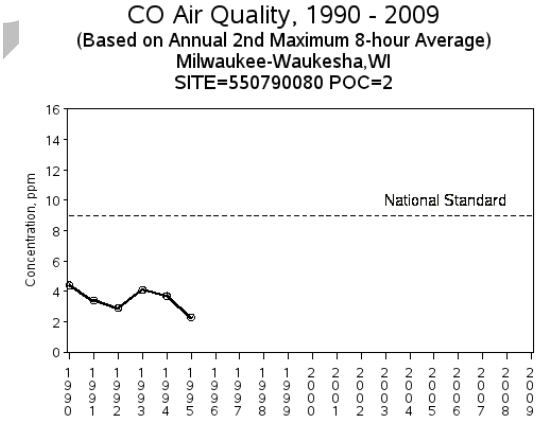
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
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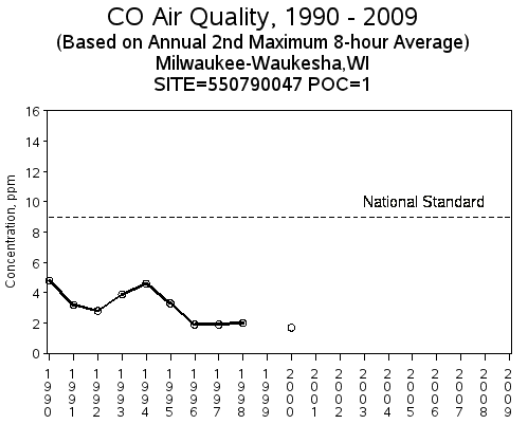
Concentration, ppm
National Standard

Figures 8 – 13


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
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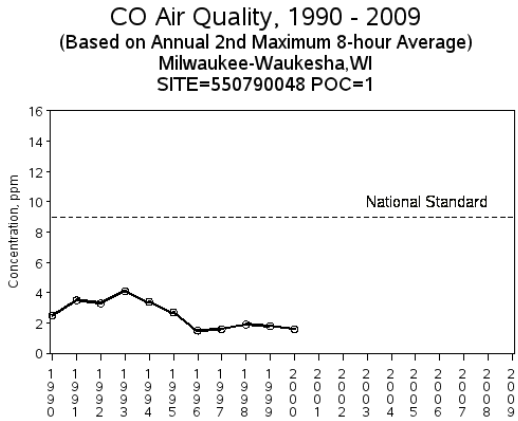
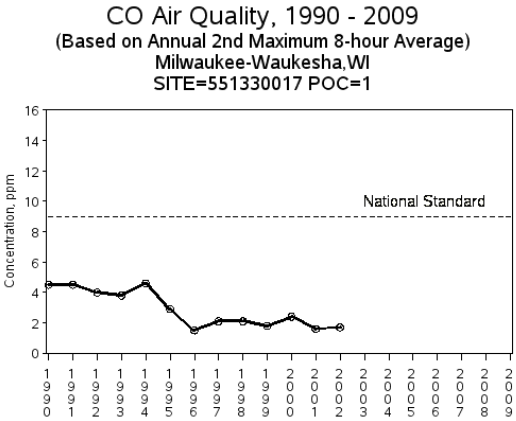
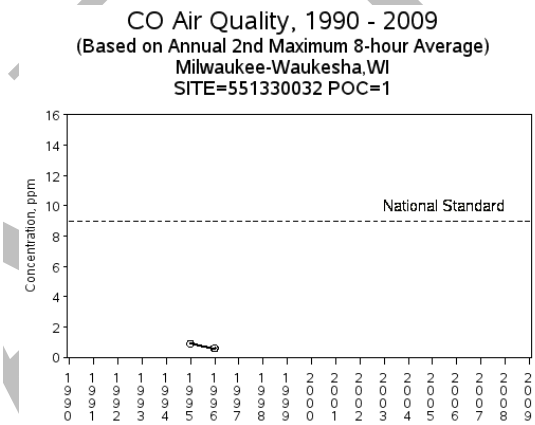
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
SITE=550790048 POC=1
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Milwaukee-Waukesha,WI
SITE=551330017 POC=1
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
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Milwaukee-Waukesha,WI
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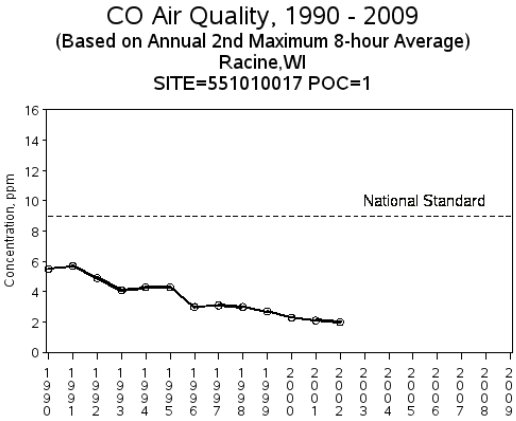
Concentration, ppm
National Standard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Racine,WI
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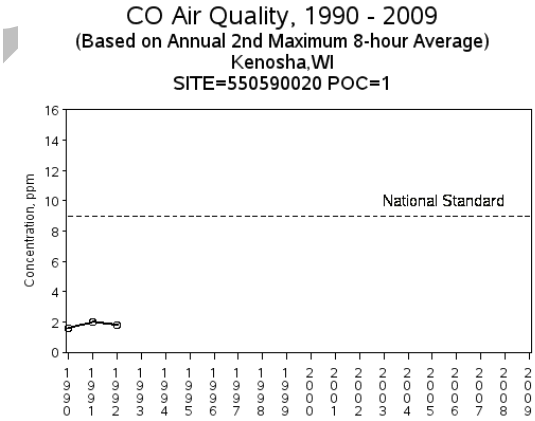
Concentration, ppm
National Standard


CO Air Quality, 1990 - 2009
(Based on Annual 2nd Maximum 8-hour Average)
Kenosha,WI
SITE=550590020 POC=1
Concentration, ppm
National Standard

VEHICLE I/M EMISSIONS SUMMARY

The U.S. EPA's Office of Transportation and Air Quality (OTAQ) recently developed the Motor Vehicle Emission Simulator (i.e., MOVES). The MOVES2010 model was officially released by the U.S. EPA in the Federal Register on March 2, 2010 (*75 FR 9411*). This model is considered by the U.S. EPA as a state-of-the-art upgrade to modeling tools for estimating emissions from cars, trucks, motorcycles, and buses, based on analysis of millions of emission test results and considerable advances in the understanding of vehicle emissions. The WDNR has quantified emissions reductions from the current I/M program using the MOVES model.

MOVES modeling projects that the current Wisconsin I/M Program will achieve the following emission reductions in the following seven nonattainment counties: Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Washington and Waukesha on a tons per summer weekday (tpswd) basis:

Table 1 – Wisconsin I/M Program Emission Reductions

YEAR	VOC	NO_x	CO
2009	3.47	5.59	40.38
2012	2.31	3.97	33.37
2015	1.76	2.66	29.68
2018	1.46	1.85	27.72
2022	1.27	1.35	26.50

MOVES modeling inputs and assumptions are included in Appendix B of this proposed SIP revision. In addition, a modeling demonstration showing that the Wisconsin I/M Program meets the emission reduction requirements in 40 CFR 51.351(g), the Alternate Low Enhanced I/M Performance Standard, is presented in Appendix C.

EMISSIONS COMPARISON

Based on MOVES modeling, the current Wisconsin I/M Program results in fewer emission reductions that would have otherwise been received from the pre-2008 SIP approved I/M program. The current program is based on OBDII-only testing, no gas cap testing, biennial tests and added OBDII testing for gasoline and diesel vehicles weighing up to 14,000 lbs. GWVR. The emission reductions of VOC, NO_x and CO are as follows on a tpswd basis:

Table 2 – Emission Summary (SIP I/M Program vs. Current I/M Program)

YEAR	SIP I/M Program			Current I/M Program			Emissions Difference		
	VOC	NO_x	CO	VOC	NO_x	CO	VOC	NO_x	CO
2009	4.55	6.53	49.27	3.47	5.59	40.38	1.08	0.94	8.89
2012	3.55	4.92	43.50	2.31	3.97	33.37	1.24	0.95	10.13
2015	2.59	3.14	35.18	1.76	2.66	29.68	0.83	0.48	5.50
2018	1.88	2.06	29.66	1.46	1.85	27.72	0.42	0.21	1.94
2022	1.59	1.49	27.42	1.27	1.35	26.50	0.32	0.14	0.92

Given attainment and maintenance issues for ozone in Wisconsin, the state is required under CAA Section 110(l) to make-up the projected lost NO_x and VOC emission reductions. However, since CO levels have been so low in Wisconsin for the past two decades, the state is not expected to make-up the projected lost emission reductions because these reductions are not anticipated to result in nonattainment. Furthermore,

based on the U.S. EPA's 2008 National Emissions Inventory (NEI), the seven I/M counties in southeast Wisconsin had 377,202.93 tons per year of CO, which equates to 1,033.43 tons per day. The 10.13 tons lost from the I/M program changes represents only 0.98% of the total emissions inventory in the region.

MAKE-UP EMISSION REDUCTIONS

As previously discussed, the state is expected to make-up projected lost NO_x and VOC emission reductions resulting from a change in the I/M program in southeast Wisconsin. The WDNR highlights the following items to ensure continued maintenance and attainment of the 1997 8-hour ozone NAAQS:

1. The decrease in motor vehicle emissions from 2005 to 2008.
2. Recorded ozone concentrations since the I/M program changes occurred in 2008.
3. Make-up emissions from closed facilities in the region, including the use of NO_x and VOC ratios.
4. A reduction in diesel emissions resulting from additional diesel vehicle I/M testing.

MOTOR VEHICLE EMISSIONS

Federal mobile source measures over the past decade have resulted in a significant reduction in emissions, including reductions in NO_x and VOC nationally and in Wisconsin. In the Milwaukee-Racine Nonattainment Area and the Sheboygan County Nonattainment Area mobile source emissions dropped significantly from 2005 to 2008 based on estimates from the U.S. EPA NEI and shown as follows:

2005
NOx: 34,155.67 tons (93.58 tons per day (tpd))
VOC: 21,879.78 tons (59.95 tpd)

2008
NOx: 22,465.13 tons (61.55 tpd)
VOC: 15,557.08 tons (42.62 tpd)

Emission Reductions Per Year
NOx: 10.68 tpd
VOC: 5.78 tpd

These emission reductions are expected to continue due to fleet turnover and additional federal measures to address mobile source emissions. Regardless of any other state approaches described in the remainder of this document, these mobile source emission reductions resulting from federal measures more than adequately cover the projected lost I/M emission reductions. However, these emission reductions can not be used as make-up emissions since they have already been used for other SIP purposes and cannot be double counted.

OZONE CONCENTRATIONS SINCE 2008

Implementation of Wisconsin Act 20 changes began in 2008. As a result, the WDNR has the advantage of using actual ozone monitored concentrations to demonstrate that the changes did not result in nonattainment or maintenance issues for the 1997 8-hour ozone NAAQS. This is consistent with EPA's draft policy regarding CAA Section 110(l) that states may demonstrate that removing a measure will not interfere with other applicable requirements. The following table shows the annual 4th highest 8-hour ozone concentrations in the state's two nonattainment areas. Not only did the state comply with the federal ozone standard, which is based on a 3-year average, it met the level of the standard annually in both areas since 2008.

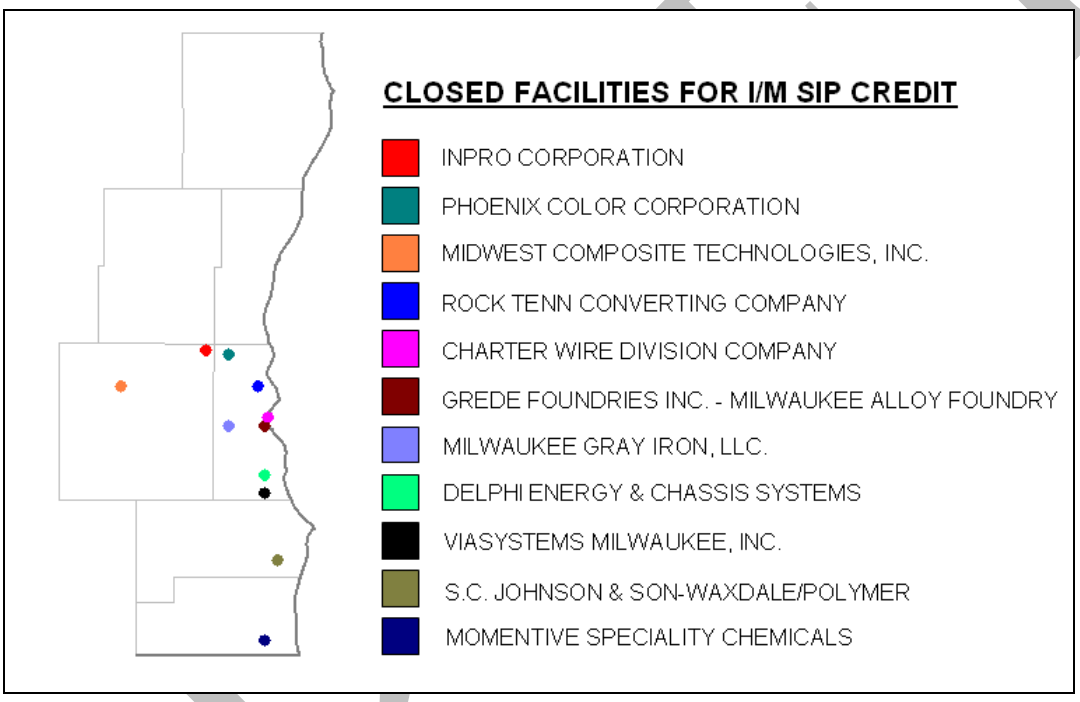
Table 3 – Recent 4th High Daily 8-Hour Maximum Ozone Concentrations

Year	Milwaukee-Racine Nonattainment Area	Sheboygan County Nonattainment Area
2008	0.072 ppm	0.075 ppm
2009	0.072 ppm	0.074 ppm
2010	0.082 ppm	0.085 ppm
2011	0.080 ppm	0.084 ppm

CLOSED FACILITY EMISSION CREDITS

To address the projected lost emission reductions, consistent with the CAA, the WDNR plans to take credit from recently closed facilities in the nonattainment area, as shown in Figure 14.

Figure 14



The WDNR proposes to take credit for 506.47 tons of VOC per year and 72.71 tons of NOx per year based on maximum annual reported emissions from 2005 through 2009. Emission credits from specific facilities are shown in Table 4. Of these 11 facilities, all of the permits have expired and have been revoked or are in the process of being revoked. Furthermore, the WDNR commits that none of these proposed emission credits will be used for any other purpose, such as nonattainment new source review (NSR) permitting offsets. These emission credits are more than adequate to cover the projected I/M program lost emission reductions, as shown in Table 5.

Table 4 – NOx and VOC Emissions from Closed Facilities

Name	FID	Date Closed	Emission Reductions [1]	
			VOC (tons)	NOx (tons)
INPRO CORPORATION	268165150	06/30/2009	21.33	0.00
PHOENIX COLOR CORPORATION	241227910	08/31/2011	7.36	0.08
MIDWEST COMPOSITE TECHNOLOGIES, INC.	268270750	12/31/2010	19.26	1.28
ROCK TENN CONVERTING COMPANY	241017920	06/30/2011	24.35	0.98
CHARTER WIRE DIVISION COMPANY	241041130	12/31/2009	37.70	0.00
GREDE FOUNDRIES INC. - MILWAUKEE ALLOY	241027600	11/30/2007	34.90	1.84
MILWAUKEE GRAY IRON, LLC.	241006370	12/31/2008	53.50	31.29
DELPHI ENERGY & CHASSIS SYSTEMS	241045750	06/10/2010	0.76	19.73
VIASYSTEMS MILWAUKEE, INC.	241116700	01/01/2009	19.10	3.44
S.C. JOHNSON & SON-WAXDALE/POLYMER	252236380	04/01/2010	11.40	4.26
MOMENTIVE SPECIALITY CHEMICALS, INC. (LAWTER INTERNATIONAL, INC.)	230089090	03/27/2009	276.81	9.81
TOTAL SIP CREDITS FROM SHUTDOWN FACILITIES			506.47	72.71

[1] NOx and VOC emissions are max annual emissions reported from 2005 - 2009

Table 5 –I/M Emissions Make-Up Demonstration

YEAR	MOVES Emissions Shortfall [1]		SIP Credits from Shutdown Facilities [2]		Trading VOC Emissions for NOx Emissions [3]		Revised SIP Credits from Shutdown Facilities		Difference (Shortfall - Credits) [4]	
	VOC (tons)	NOx (tons)	VOC (tons)	NOx (tons)	VOC (tons)	NOx (tons)	VOC (tons)	NOx (tons)	VOC (tons)	NOx (tons)
2009	**341.18**	**302.15**	455.66	63.60	70.00	280.00	385.66	343.60	-44.47	-41.45
2010	358.94	303.53	481.58	71.57	70.00	280.00	411.58	351.57	-52.64	-48.04
2011	376.69	304.91	506.47	72.71	70.00	280.00	436.47	352.71	-59.77	-47.80
2012	**394.45**	**306.29**	506.47	72.71	70.00	280.00	436.47	352.71	-42.02	-46.42
2013	350.39	255.54	506.47	72.71	70.00	280.00	436.47	352.71	-86.07	-97.17
2014	306.34	204.79	506.47	72.71	70.00	280.00	436.47	352.71	-130.12	-147.92
2015	**262.29**	**154.04**	506.47	72.71	70.00	280.00	436.47	352.71	-174.18	-198.66
2016	219.54	124.85	506.47	72.71	70.00	280.00	436.47	352.71	-216.93	-227.86
2017	176.79	95.66	506.47	72.71	70.00	280.00	436.47	352.71	-259.68	-257.05
2018	**134.04**	**66.46**	506.47	72.71	70.00	280.00	436.47	352.71	-302.43	-286.25
2019	126.38	61.19	506.47	72.71	70.00	280.00	436.47	352.71	-310.08	-291.52
2020	118.73	55.92	506.47	72.71	70.00	280.00	436.47	352.71	-317.74	-296.79
2021	111.07	50.64	506.47	72.71	70.00	280.00	436.47	352.71	-325.40	-302.07
2022	**103.41**	**45.37**	506.47	72.71	70.00	280.00	436.47	352.71	-333.05	-307.34

[1] Bold numbers indicate MOVES modeling results, other years determined by linear regression
VOC tpswd estimates have been multiplied by 318 to get annual estimates
NOx tpswd estimates have been multiplied by 322 to get annual estimates
Both of these conversions have been used by the Department in the past

[2] 2009 and 2010 SIP emission credits were reduced because some facilities had not yet closed and reported emissions to the Department

[3] 4:1 VOC to NOx Ratio (i.e., 1 ton of VOC = 4 tons of NOx)

[4] Negative numbers indicate that the emissions shortfall has been adequately covered

The 4:1 NOx to VOC conversion ratio was based on a recently released report by Sonoma Technology, Inc. (STI) dated May, 2011, entitled "*A Top-Down Emissions Inventory Evaluation for the Upper Midwest*". The 4:1 conversion ratio is seen as conservative, since a 5:1 ratio is cited in the report based on 2008 data. The STI report is included in Appendix D for reference.

DIESEL EMISSION REDUCTIONS

Wisconsin's addition of diesel vehicle testing and heavier vehicles in 2008 was intended to make-up for any lost emissions reductions resulting from ceasing testing of 1968 – 1995 vehicles when comparing the emission benefits from the original and current I/M Program in southeast Wisconsin[1]. The WDNR believes EPA should formally recognize that the state is currently conducting this testing and grant additional SIP emission reduction credits.

Based on the predecessor model to MOVES, MOBILE6.2, the WDNR estimates the addition of diesel vehicle testing will result in the following emission reductions in the seven Wisconsin I/M Program counties:

Table 6 – Diesel Emission Reductions

Diesel OBD Test Start Year	Expected Emissions Reduction (tons/year)					
	2010		2012		2018	
	NO_x	VOC	NO_x	VOC	NO_x	VOC
2010	0.86	0.70	1.67	1.31	4.23	3.26

The WDNR requests that EPA work with the WDNR to develop emission credits for this portion of the I/M program using the MOVES model and formally credit the state for these emission reductions.

CONCLUSION

The current vehicle I/M program in Wisconsin sufficiently meets all applicable CAA requirements. As such, the WDNR formally requests that the U.S. EPA review and approve this proposed SIP revision relating to various enhancements to the state's Vehicle I/M Program in the southeastern Wisconsin as expeditiously as possible in accordance with CAA requirements.

[1] See 110.20(1)(b), 110.20(6)(a), 285.30(5)(d), and 341.10(8), Wis. Stats.